Rain Bird ESP-TM2

Rain Bird ESP-TM2 Irrigation Controller User Manual

Model: ESP-TM2 | Brand: Rain Bird

1. PRODUCT OVERVIEW

The Rain Bird ESP-TM2 irrigation controller is designed for residential irrigation systems, offering a balance of simplicity and advanced water-saving features. This controller allows for flexible watering schedules with up to 3 programs and 4 start times per program, enabling precise control tailored to your landscape's specific needs. The ESP-TM2 features an intuitive Extra Simple Programming interface and is built for durability in both indoor and outdoor environments. It includes a pre-installed LNK WiFi Module, providing mobile-friendly control and monitoring capabilities.

Key Features:

- Controls up to 6 sprinkler zones.
- Quick and easy installation, suitable for indoor or outdoor mounting.
- Factory-installed 6-foot outdoor-rated power cord for convenience.
- Simple 3-step programming for quick schedule setup.
- Large, back-lit LCD display for enhanced visibility in various lighting conditions.
- Integrated LNK WiFi Module for remote control via smartphone or internet.
- Advanced features including Contractor Default for saving/restoring custom schedules.
- Delay Watering function (up to 14 days) with automatic resumption.
- Automatic weather adjustments for daily run time changes, potentially saving up to 50% in water.

Figure 1.1: Rain Bird ESP-TM2 Controller with LNK WiFi Module.

2. SETUP AND INSTALLATION

2.1 Mounting the Controller

The ESP-TM2 controller can be mounted indoors or outdoors. Choose a location that is protected from direct sunlight and extreme weather conditions if possible, and is within reach of a standard 110V AC power outlet. Ensure the mounting surface is stable and secure.

1. Open the controller's front cover.
2. Mark the positions for the mounting screws using the provided template or the keyholes on the back of the unit.
3. Install appropriate wall anchors (e.g., drywall anchors) if mounting into drywall.
4. Secure the controller to the wall using screws, ensuring it is level and firmly attached.

2.2 Wiring the Controller

Before wiring, ensure the power to the controller is disconnected. The ESP-TM2 features clearly labeled terminals for easy connection of your sprinkler zone wires and common wire. The LNK WiFi Module is typically pre-installed.

1. Connect the common wire from your sprinkler valves to the terminal labeled 'C' (Common).
2. Connect each individual zone wire from your sprinkler valves to the corresponding numbered terminals (1, 2, 3, etc.).
3. If using a rain sensor or other accessory, connect its wires to the designated sensor terminals (SENS). Refer to the sensor's manual for specific wiring instructions.
4. Plug the factory-installed power cord into a standard 110V AC outlet.

Figure 2.1: Internal view of the ESP-TM2 showing wiring terminals and programming chart.

2.3 Initial Power-Up and WiFi Connection

Upon initial power-up, the controller will prompt you to set the date and time. The LNK WiFi Module will automatically attempt to connect to your home network once configured via the Rain Bird mobile app.

1. Set the current date and time using the dial and arrow buttons on the controller.
2. Download the Rain Bird mobile app from your device's app store.
3. Follow the in-app instructions to connect your ESP-TM2 controller to your WiFi network. This typically involves selecting the LNK WiFi Module within the app and entering your network credentials.

3. OPERATING INSTRUCTIONS

The ESP-TM2 controller features a simple rotary dial and intuitive buttons for programming. Most functions can also be managed via the Rain Bird mobile app once connected.

3.1 Dial Positions and Functions

- **OFF:** Turns off all automatic watering.
- **AUTO:** Enables automatic watering based on programmed schedules.
- **Date/Time:** Used to set the current date and time.
- **Start Times:** Used to set the start times for each program (A, B, C). Each program can have up to 4 start times.
- **Run Times:** Used to set the duration for each zone within a program.

- **Water Days:** Used to select specific days of the week for watering, or to set odd/even day watering.
- **Manual Watering:** Allows for immediate, temporary watering of a specific zone or all zones.
- **Seasonal Adjust:** Adjusts all zone run times by a percentage to compensate for seasonal changes without reprogramming.
- **Sensor:** Displays the status of a connected rain sensor.

3.2 Programming a Basic Schedule (3 Steps)

The ESP-TM2 simplifies programming into three main steps:

1. **Set Start Times:** Turn the dial to 'Start Times'. Use the arrow buttons to set up to four start times for Program A. Repeat for Programs B and C if needed.
2. **Set Run Times:** Turn the dial to 'Run Times'. Use the arrow buttons to set the watering duration for each zone (1-6) within the selected program.
3. **Set Water Days:** Turn the dial to 'Water Days'. Select the specific days of the week you want watering to occur, or choose odd/even day watering.

Once programmed, return the dial to 'AUTO' for automatic operation.

3.3 Using the Rain Bird Mobile App

The Rain Bird mobile app provides full control and monitoring capabilities for your ESP-TM2 controller from anywhere with an internet connection. Features include:

- Remote programming and schedule adjustments.
- Manual watering initiation.
- Real-time system status and alerts.
- Automatic weather-based adjustments (requires active internet connection).
- Access to water usage reports.

Figure 3.1: Rain Bird ESP-TM2 Controller with cover closed, suitable for outdoor installation.

4. MAINTENANCE

4.1 General Care

- Keep the controller's exterior clean by wiping it with a damp cloth. Avoid abrasive cleaners.
- Ensure the cover is securely closed to protect internal components, especially for outdoor installations.
- Periodically check wiring connections to ensure they are secure and free from corrosion.

4.2 Winterization (for regions with freezing temperatures)

To prevent damage from freezing, it is crucial to properly winterize your irrigation system and controller.

1. Turn the controller dial to the 'OFF' position.
2. Disconnect the power to the controller by unplugging it from the outlet.
3. Drain all water from the irrigation system's pipes and valves. This may require professional assistance or specific blow-out procedures.
4. If the controller is installed outdoors in an exposed location, consider removing it and storing it indoors in a dry, temperature-controlled environment.

5. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your ESP-TM2 controller.

Problem	Possible Cause	Solution
Controller display is blank.	No power to the controller.	Check power outlet, circuit breaker, and ensure power cord is securely plugged in.
Zones are not watering.	Controller in 'OFF' mode; faulty wiring; water supply off; rain sensor active.	Set dial to 'AUTO'. Check wiring connections. Ensure main water supply is on. Check rain sensor status or bypass it for testing.
WiFi connection issues.	Weak WiFi signal; incorrect network credentials; router issues.	Ensure controller is within WiFi range. Re-enter WiFi credentials in the app. Restart your router. Note: Supports 2.4GHz WiFi only.
Specific zone not watering.	Faulty solenoid; broken wire; clogged nozzle.	Inspect the solenoid on the valve for the affected zone. Check the wiring for breaks. Clean or replace sprinkler nozzles.

If issues persist after attempting these solutions, please contact Rain Bird customer support or a certified irrigation professional.
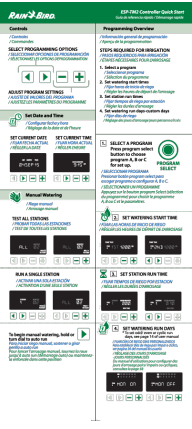
6. SPECIFICATIONS

Feature	Specification
Model	ESP-TM2
Zones	6
Power Input	110 Volts AC
Display Type	LCD (Back-lit)
Operating Temperature	Up to 149°F (65°C)
Product Dimensions (L x W x H)	7.92" x 3.51" x 7.86" (20.12 cm x 8.92 cm x 19.96 cm)
Item Weight	3.74 pounds (1.7 kg)
Material	Plastic
UPC	857447008133
Included Module	LNK WiFi Module

7. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official Rain Bird website. Rain Bird offers comprehensive customer support for product inquiries, technical assistance, and troubleshooting.

Please retain your proof of purchase for any warranty claims.

Related Documents - ESP-TM2

[Rain Bird ESP-TM2 Controller User Manual: Installation, Programming, and Operation](#)
Comprehensive user manual for the Rain Bird ESP-TM2 irrigation controller. Provides detailed instructions on installation, wiring, basic and advanced programming, manual operation, troubleshooting common issues, and safety information for efficient lawn and garden watering.

[Rain Bird Controllers: Smart Irrigation Solutions](#)
Explore Rain Bird's range of intelligent irrigation controllers, including Wi-Fi enabled models and the LNK WiFi Module for remote access and water savings. Learn about features like seasonal adjustment, weather-based watering, and advanced programming.

[RAIN BIRD ESP-TM2 Controller Quick Start Guide and Programming Chart](#)
User guide for the RAIN BIRD ESP-TM2 irrigation controller. Learn how to program watering schedules, set start times, run times, and watering days. Includes a detailed programming chart and setup instructions.

[Rain Bird ESP-RZXe Controller Installation and Operation Manual](#)
This manual provides detailed instructions for the installation and operation of the Rain Bird ESP-RZXe irrigation controller. It covers features, basic programming, advanced functions, installation procedures for indoor and outdoor models, troubleshooting, and safety information.

[Rain Bird Amazon Alexa WiFi Setup Guide](#)
Step-by-step guide to connect your Rain Bird Wi-Fi enabled irrigation controller with Amazon Alexa for voice control. Learn how to set up the Rain Bird app, link your account, and use voice commands.

ESP-ME3 Controller
Advanced User Manual

LNK™ Ready

[Rain Bird ESP-ME3 Controller: Advanced Irrigation Management](#)
User manual for the Rain Bird ESP-ME3 Controller, detailing advanced irrigation scheduling, Wi-Fi connectivity, and water efficiency for residential systems.